

'Seamless' wireless Internet system is team's goal

By Diane Clay, Staff Writer

NORMAN — A project at the University of Oklahoma is expected to change the way Americans use wireless Internet.

Computer science professor Mohammed Atiquzzaman and a team of students have devised a way to achieve seamless wireless Internet.

Users will be able to link to the Internet with a laptop inside a building, walk outside, jump in a car and drive cross-country without noticing a change in service.

It is similar to the network that transfers cell phone calls from tower to tower as a person travels.

The project, which started in July 2003, is funded by the National Aeronautics and Space Administration, whose officials want to develop a system that would give scientists and government officials instant access to satellites and real-time data.

NASA extended the project's grant through January 2007.

Atiquzzaman said the process involves three levels of technology.

"When you are inside a building, you are connected to the wireless (network), and when you are outside of the building, you are connected to the cellular network, and if you go farther in the ocean or forest, you are handed

off automatically to the satellite," he said.

The current range of wireless Internet is about 300 feet.

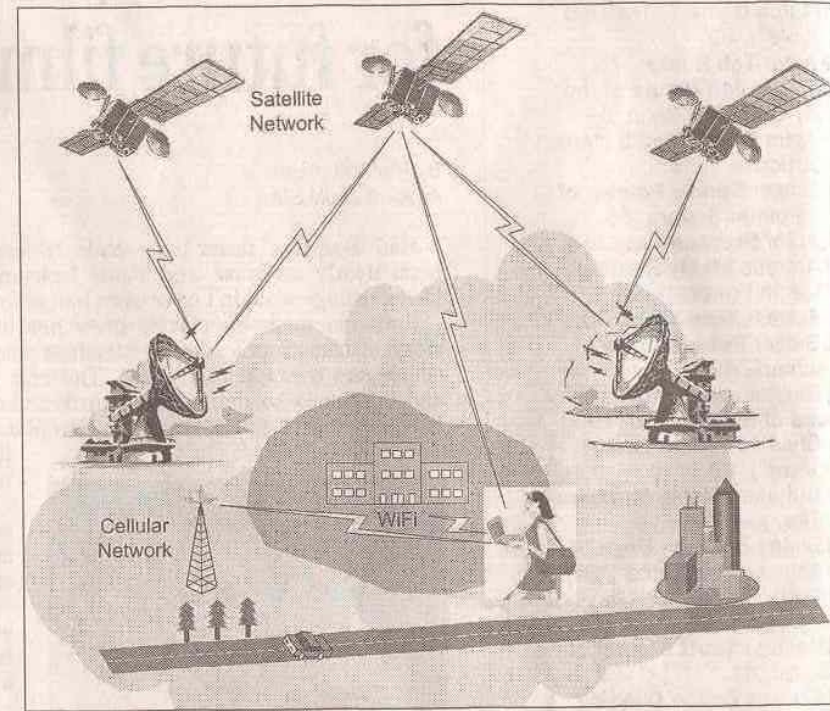
Atiquzzaman said his idea is the logical next step in the progression of computer communication, following in the path of telephones, which started with cords and now are cord-free and able to roam.

Atiquzzaman's research team consists of students Shaojian Fu, Justin Jones, Abu Sayeem Reaz, Pulak Chowdhury and Surendra Sivagurunathan as well as outside collaborators with the Korea National University of Education and the University of Canterbury in New Zealand.

The group plans to test OU's system in August or September live on a satellite owned by Surrey Satellite Technologies in England.

If successful, Atiquzzaman said he hopes to quickly find a partner to commercialize the technology for public use.

"That's one of my dreams, is to test it live, and it works," he said. "That's what I've been aiming for for five years."



This illustration shows the process for seamless wireless Internet devised by a computer science professor and students at the University of Oklahoma. The process starts with the wireless network and then moves to the cellular network and satellites.